REMARKS

This Amendment is being submitted in response to the Office Action dated June 25, 2008 in the above-identified application. Concurrently with this Amendment, Applicant submits a petition for a two-month extension of time for filing a response, along with the requisite fee. Therefore the time for filing a response to the June 25, 2008 Office Action is thereby extended to November 25, 2008, and this Amendment is being timely filed. If it is determined that any additional fee is due in connection with this filing, the Commissioner is authorized to charge said fees to Deposit Account No. 50-0552.

The drawings were objected to under 37 C.F.R. § 1.83(a) for allegedly failing to show the axially symmetrical components. Claims 21 to 23, 38 and 39 were rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. Claims 20 to 23 and 25 to 35 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 20 to 23, 25, 27 and 30 to 36 were rejected under 35 U.S.C. § 103(a) as being obvious Turnquist et al. (U.S. Patent No. 6,105,967) in view of Kono (U.S. Publication No. 2002/0140174. Claims 26, 28 and 29 were rejected under 35 U.S.C. § 103(a) as being obvious over Turnquist et al. in view of Kono and further in view of Beichl et al. (U.S. Publication No. 2004/0188943). Claims 37 to 40 were rejected under 35 U.S.C. § 103(a) as being obvious over Turnquist et al. in view of Kono and further in view of Hagle (U.S. Patent No. 5,074,748).

Claims 21 to 23, 38 and 39 have been amended. Support of the amendment to claims 21 to 23, 38 and 39 can be found in the specification as filed, e.g. paragraphs [0031] and [0032]. Claim 24 was previously withdrawn without prejudice.

Claims 20 to 23 and 25 to 40 are currently pending in this application.

Reconsideration of the application based on the following is respectfully requested

Drawings

The drawings were objected to under 37 C.F.R. § 1.83(a) for allegedly failing to show the axially symmetrical components.

Applicants respectfully submit the term "axially symmetrical" has been selected by Applicants to adequately describes the orientation of the housing and guide vane as described in

the present invention and is fully congruent with the drawings, e.g. Figure 1. Applicants further submit that an alteration of the term "axially symmetrical" may mischaracterize the nature of Applicants' invention. Therefore, Applicants respectfully re-direct the Examiner's attention to paragraph [0004] of the specification as filed wherein the axially symmetrical components are described as being "disposed concentrically about one another" and paragraph [0019] which states that "[t]he axially symmetrical guide vane is disposed concentrically about axially symmetrical housing 10" as depicted in Figure 1. Similarly, paragraph [0030] states: "First sealing device 20 having an annular seal design and second sealing device 21 having a brush seal design are axially symmetrical, as are housing 10 and the guide vanes, and are positioned between these two concentrically disposed, axially symmetrical components." Applicants respectfully submit that in view of paragraphs [0004], [00019], and [0030] in conjuction with Figure 1, the term "axially symmetrical components" would be clear to one of skill in the art. Applicants reassert that the term "axially symmetrical" means that in the axial direction the components are symmetrical about an axis.

Rejections under 35 U.S.C. § 112, first paragraph

Claims 21 to 23, 38 and 39 were rejected under 35 U.S.C. §112, first paragraph as failing to comply with the enablement requirement because the terms "closed brush seal" and "open brush seal" were found to be not enabled in the specification. See Office Action, page 3, item 3.

Although Applicants believe that the terms "closed brush seal" and "open brush seal" are terms that are well defined in the art pertaining to seals, claims 21 to 23, 38 and 39 have been amended to delete the terms "closed brush seal" and "open brush seal" without prejudice to expedite the prosecution of this matter. Applicants amend claims 21 to 23, 38 and 39 to incorporate the description of the brush seal as described in the specification as filed, e.g. paragraphs [0031] and [0032].

Withdrawal of the rejections under 35 U.S.C. §112, first paragraph thus is respectfully requested.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 20 to 23 and 25 to 35 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. According to the Office Action, it is unclear what is being claimed with the term "axially symmetrical components". See Office Action, page 4. The Office Action states that "the examiner is interpreting "axially symmetrical components" to be claiming that one component is encircled by another component". See Office Action, page 4, second full paragraph.

Applicants respectfully submit the term "axially symmetrical" has been selected by Applicants to adequately describes the orientation of the housing and guide vane as described in the present invention and is fully congruent with the drawings, e.g. Figure 1. Applicants further submit that an alteration of the term "axially symmetrical" may mischaracterize the nature of Applicants' invention. Therefore, Applicants respectfully re-direct the Examiner's attention to paragraph [0004] of the specification as filed wherein the axially symmetrical components are described as being "disposed concentrically about one another" and paragraph [0019] which states that "[t]he axially symmetrical guide vane is disposed concentrically about axially symmetrical housing 10" as depicted in Figure 1. Similarly, paragraph [0030] states: "First sealing device 20 having an annular seal design and second sealing device 21 having a brush seal design are axially symmetrical, as are housing 10 and the guide vanes, and are positioned between these two concentrically disposed, axially symmetrical components." Applicants respectfully submit that in view of paragraphs [0004], [00019], and [0030] in conjunction with Figure 1, the term "axially symmetrical components" would be clear to one of skill in the art. Applicants reassert that the term "axially symmetrical" means that in the axial direction the components are symmetrical about an axis.

Furthermore, Applicants also note that the term "axially symmetric" is found in granted U.S. Patent No. 4,563,128 to Rossmann, et al. wherein it states that the term axially symmetrical is "symmetric relative to the longitudinal , radial axis" of the blade. See Rossmann, col. 2, lines 25 to 28. Applicants submit that the Rossmann definition of "axially symmetric" is congruent with the use of the term in the present specification.

Withdrawal of the rejections under 35 U.S.C. § 112, second paragraph thus is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 20 to 23, 25, 27 and 30 to 36 were rejected under 35 U.S.C. § 103(a) as being obvious over Turnquist et al. (U.S. Patent No. 6,105,967) in view of Kono (U.S. Publication No. 2002/0140174.

Claim 20 of the present invention recites: "A sealing arrangement, comprising: at least one first sealing device including an annular seal; a second sealing device including a brush seal; wherein the first and second sealing devices are placed between axially symmetrical components symmetrical about an axis, and the second sealing device is positioned so as to be axially offset from the first sealing device; and wherein the annular seal is a metallic piston-ring seal having a separation site".

The Office Action admits that the Turnquist et al. reference fails to explicitly disclose the annular seal being a piston-ring seal.

The Kono patent does not cure the deficiency of the Turnquist patent because Kono also does not teach or suggest an "annular seal is a metallic piston-ring seal having a separation site." The Kono patent at col. 1, lines 9 to 13 as cited by the Examiner, describes "an assembly-type brush seal device that allows enlargement through combination of split-body parts and that can be assembled with or removed from a shaft easily." As such Kono describes a brush seal device comprising a brush seal and split body parts **not** that an "annular seal is a metallic piston-ring seal having a separation site" as recited in claim 20 of the present invention. Therefore, Kono does not teach or suggest the combination of "at least one first sealing device including an annular seal; a second sealing device including a brush seal...wherein the annular seal is a metallic piston-ring seal having a separation site" as recited in claim 20 of the present invention. In fact the combination of the Kono patent and the Turnquist patent as suggested by the Examiner would result in a sealing arrangement consisting of two brush seals and **not** "at least one first sealing device including an annular seal; a second sealing device including a brush seal...wherein the annular seal is a metallic piston-ring seal having a separation site" as recited in claim 20 of the present invention.

The Office Action also states that "it would be obvious to one of ordinary skill in the art

at the time of the invention to make the annular seal of the Turnquist et al. reference a split ring in view of the teachings of the Kono reference in order to allow enlargement through combination of split-body parts." See Office Action, page 5, third full paragraph. However, the Turnquist patent shows "combination brush and labyrinth seals." See Turnquist, col. 1, lines 10 to 11. As admitted by the Office Action, Turnquist et al. reference fails to explicitly disclose the annular seal being a piston-ring seal. As discussed above, Kono fails to cure this deficiency of Turnquist. Moreover, Turnquist describes that "to prevent relative circumferential movement of the brush segment and seal ring segment, the brush segment and seal ring segments are welded to one another adjacent one or both opposite end faces". See Turnquist, col. 5, lines 45-48. (Emphasis added). Moreover, Turnquist would not want a piston-ring seal as it segments its backing plate 38, as well as its seal ring 14 (See Col. 1, lines 65 et seq.).

Withdrawal of the rejections under 35 U.S.C. § 103(a) thus is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 26, 28 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Turnquist et al. in view of Kono and further in view of Beichl et al. (US 2004/0188943).

Claims 26, 28 and 29 all indirectly depend from independent claim 20. The rejection to claim 20 under 35 U.S.C. § 103(a) as being obvious to the Turnquist et al. patent and the Kono patent is discussed above.

Beichl et al. describes a device for a non-hermetic seal. Beichl fails to cure the deficiencies of the Turnquist and Kono patents because Beichl fails to teach or suggest "at least one first sealing device including an annular seal; a second sealing device including a brush seal...wherein the annular seal is a metallic piston-ring seal having a separation site" as recited in claim 20 of the present invention.

In view of the above, withdrawal of the rejections under 35 U.S.C. § 103(a) thus is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 37 to 40 were rejected under 35 U.S.C. § 103(a) as being obvious over Turnquist et al. in view of Kono and further in view of Hagle (U.S. Patent No. 5,074,748).

Claim 37 of the present invention recites: "A sealing arrangement for fixed components placed about an axis, comprising:at least one first sealing device including an annular seal;a second sealing device including a brush seal; wherein the first sealing device and the second sealing device is placed between axially symmetrical components symmetrical about an axis, and the second sealing device is positioned so as to be axially offset from the first sealing device; and wherein the annular seal is a metallic piston-ring seal having a separation site.

The Office Action admits that the Turnquist et al. reference fails to explicitly disclose the annular seal being a piston-ring seal. As discussed above, the Kono patent does not cure the deficiency of the Turnquist patent because Kono also does not teach or suggest an "annular seal is a metallic piston-ring seal having a separation site."

Hagle describes a seal assembly for segmented turbine engine structures. Hagle fails to cure the deficiencies of the Turnquist and Kono patents because Hagle fails to teach or suggest "at least one first sealing device including an annular seal; a second sealing device including a brush seal...wherein the annular seal is a metallic piston-ring seal having a separation site" as recited in claim 37 of the present invention.

Claims 38 to 40 all depend from independent claim 37.

In view of the above, withdrawal of the rejections under 35 U.S.C. § 103(a) thus is respectfully requested.

CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,

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